

Supplementary Information

Table S1. Summary of catchments in the Central and Western Europe and Middle Missouri ecoregions that had passed either an agricultural or urban land use threshold.

Ecoregion	Count	Agriculture	Urban
<i>Central and Western Europe</i>			
All	141,132	71,177 (50.4%)	62,248 (44.1%)
Creeks	107,597	48,566 (45.1%)	37,044 (34.4%)
Rivers	33,535	22,611 (67.4%)	25,204 (75.2%)
<i>Middle Missouri</i>			
All	181,176	153,449 (84.7%)	118,789 (65.6%)
Creeks	138,993	115,144 (82.8%)	91,228 (65.6%)
Rivers	42,183	38,305 (90.8%)	27,561 (65.3%)

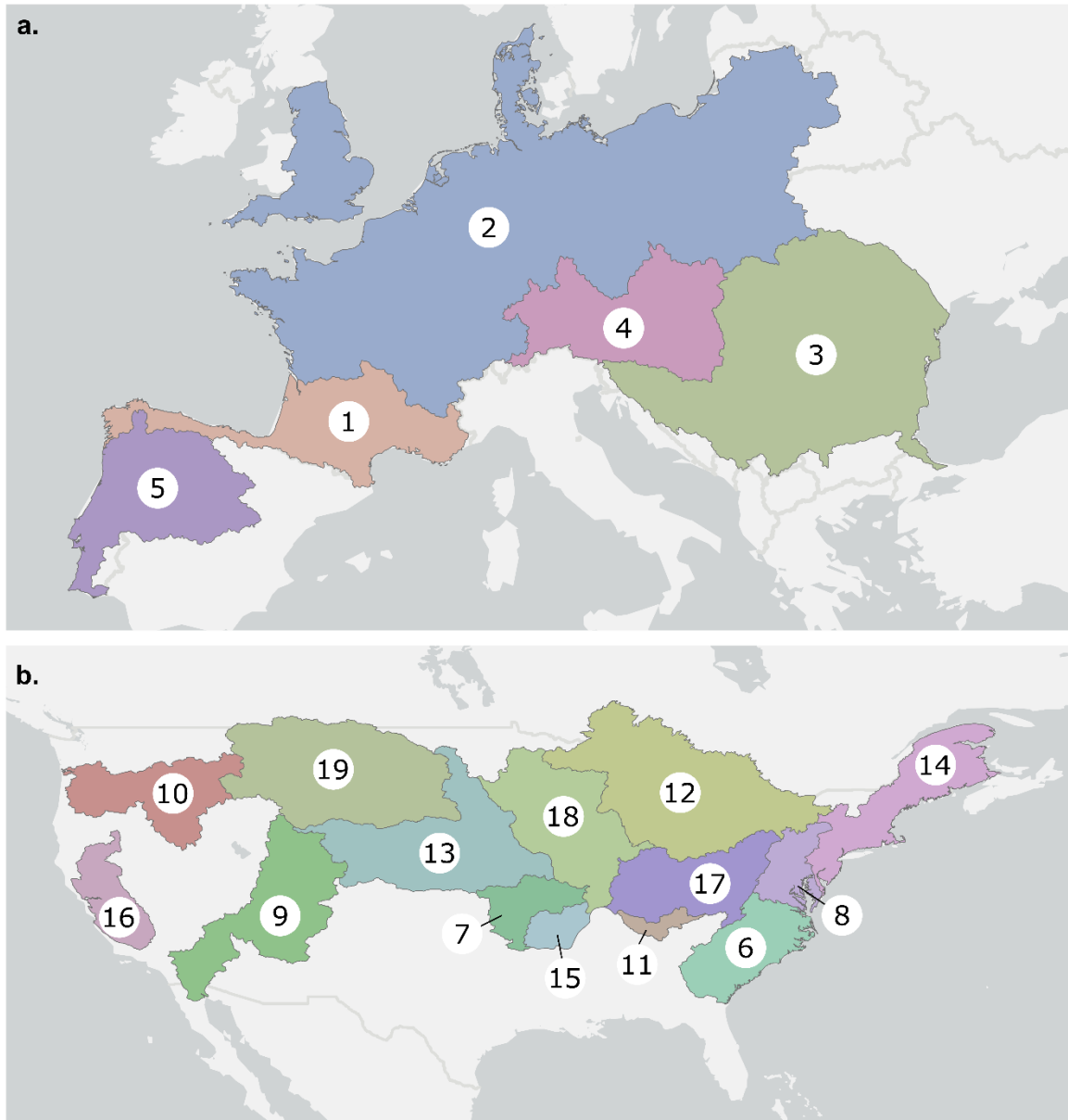


Figure S1. Ecoregions in (a) Europe (n=5) and the (b) United States (n=14) with empirically derived land use thresholds summarized in Table 1 (Üblacker et al., 2023). The two ecoregions that we present as case studies include the Central and Western Europe ecoregion (a; ID #2) and the Middle Missouri ecoregion (b; ID #13).

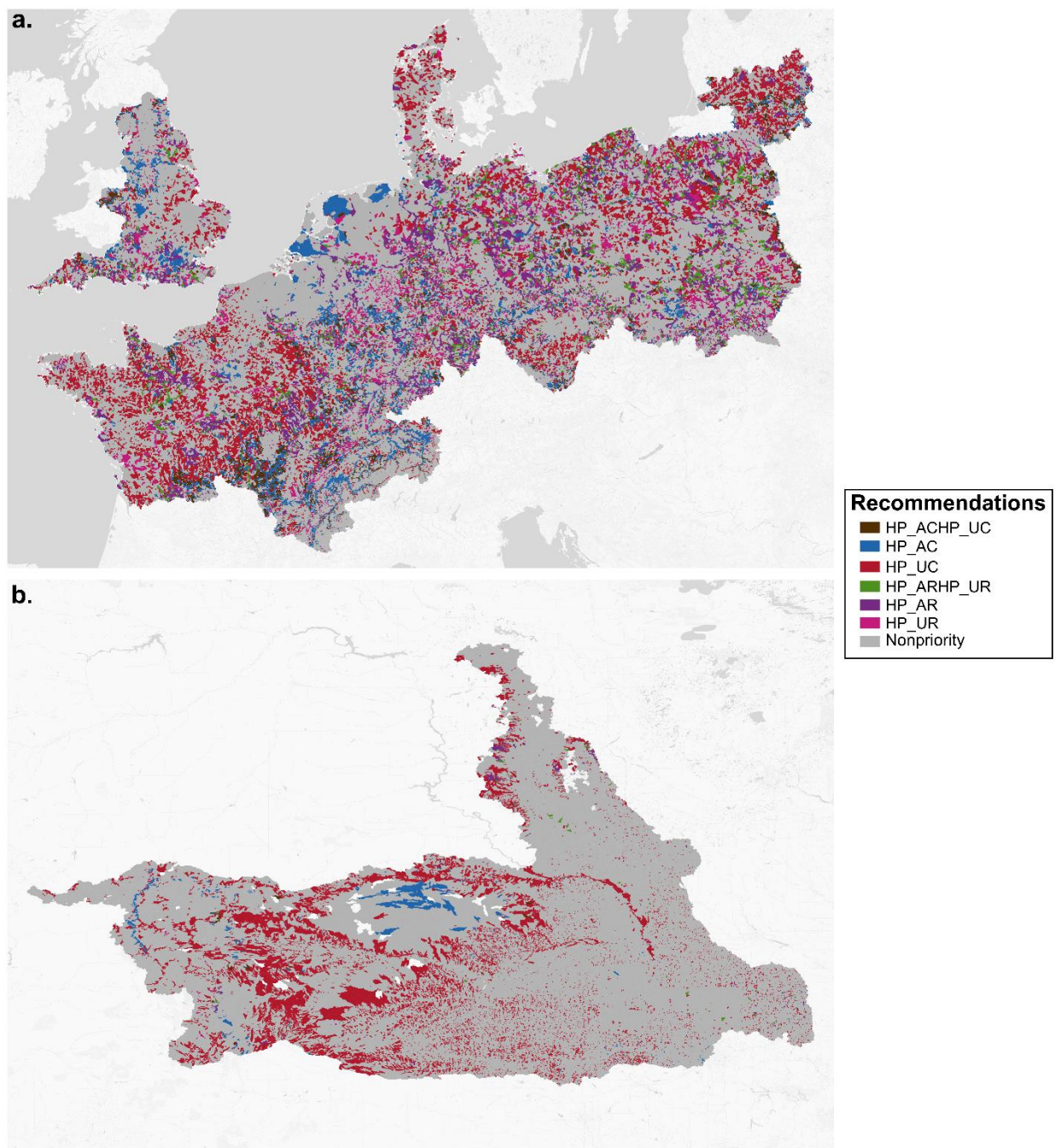


Figure S2. Conservation (C) and restoration (R) priorities for agricultural (A) and urban (U) land use in the (a) Central and Western Europe and (b) Middle Missouri ecoregions. Nonpriority catchments are shown in grey. Priorities were identified using the framework presented in Figure 5.